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CROUP

And its Treatment with Antiperiodic Doses of Quinine.

By Henry F. Campbell. 29520

We can listen with more complacency to a minute recital of all the horrible circumstances of a child's death by any accident, whether blown up with gun-powder or mangled by a train of cars, than we can hear the simple announcement, "a child has died of Croup." In the one, a momentary pang has probably extinguished life and suffering together—in the other, hours, days, sometimes weeks of agony, both bodily and mental, foreshadow a death fully as unavoidable and not less horrible, either to the little sufferer or its attendants. Few who have watched a case of croup from its hopeless stages to its termination in death, will dissent from the horror we here express, or will object to a review of any method of treatment which promises the remotest hope of averting the painful scene of a child's death-bed where croup is the dread destroyer. It is, *par excellence*, *the* opprobrium of our profession, and since *cure* is so uncertain, in its latter stages, let us consider, with at least patience, whatever of *prevention* can be suggested in its insidious beginning.

Croup, as it has occurred under our observation in the Southern country, we are persuaded, has an obvious and important relation to Malarial Fever. It is nearly always at first, a *neurosis*, manifesting itself in *paroxysms*, by a series of symptoms, either of a spasmodic or inflammatory character, while frequently, these two classes of symptoms are intimately blended. Any case of spasmodic croup is liable to become true membranous laryngitis, but membranous laryngitis is not always preceded by spasmodic symptoms. These last are not frequent, except from the extension of Diphtheritic inflammation from the fauces down into the larynx, there establishing what we consider the most fatal of all the varieties of croupal disease, for, besides the mechanical obstruction to the air-passages, there is a constitutional *asthenia*, a combination which often strikes a chill of despair into the heart of the medical attendant, long before the more notable aspects of the case portend a fatal termination. Of these cases, we will present our notes on a future occasion.

In cases where *spasmodic croup* becomes transformed into the *membranous form*, the process is not an evenly progressive one, but the course towards this more serious variety, is *interrupted* by *remissions*, and often by the most decided *intermissions*, the respite often occupying from twelve to twenty-four hours. This is especially the case in the beginning of the disease, and this is the true, and indeed, often the only, period for efficient medication. A child is attacked suddenly in the middle of the night with all the urgent and apparently dangerous symptoms of what is ordinarily called Spasmodic Croup; an emetic, a cold wet bandage to the throat, or some other favorite efficient means promptly relieves the urgency of the attack, the breathing becomes free, but is still somewhat hoarse, the child sleeps well, and wakes in the morning apparently as well as ever—there may be some hoarseness towards evening of the next day, but the attack is over and the child considered well. At night again, perhaps, a few hours before the time of the previous attack, all the symptoms return—there may be fever, but generally as yet there is none—the same remedies are again applied—perhaps more active treatment is resorted to, and the child is again relieved—perhaps permanently, as very often occurs, we are free to admit—but again, *perhaps not*, and this last possibility should give every case of spasmodic croup all its importance in the eyes of every practitioner. If the case is not one which is to take the favorable course, the child will be found hoarser after the second attack than after the first; this hoarseness will greatly increase towards night, when again there will occur a paroxysm more violent than ever, more difficult to relieve, and on the subsidance of the spasmodic symptoms, there will be found still remaining a difficulty in respiration—a persistent distress, indicating either thickening of the mucous membrane, or the effusion of the material for false membrane. That which was dynamic has now become organic—*functional* occlusion of the air-passage from muscular spasmodic action—has now become a *mechanical* obstruction from an encroachment on, and diminution of, the calibre of the air-tube. The chances may be said even now to have nearly *passed*, for a hopeful prognosis—the treatment, after this, is admitted on all hands to be inefficient, and the result uncertain.

It is not of the cases when they have arrived at this stage, that we wish now to speak. It is our object here to urge what we consider almost a specific treatment, which is particularly applicable in the early part of the disease, but by no means unimportant even later. We refer to the administration of *Quinine in efficient doses during the intermissions and remissions characterizing the initial stages of the disease.*

The treatment of croup, then, like that of intermittent fever, the great archetype of all paroxysmal diseases, may be divided into--1st, measures appropriate during the attack; and 2nd, those appropriate during the intermission or remission. We consider the division just as important here as in cases of true paroxysmal fever.

During the attack, we regard *emetics* of the first importance; efficient doses of ipecac we prefer to all others, but lobelia is valuable, and frequently used by many. We deprecate the common domestic practice of giving castor oil or lamp oil, as one of the first expedients in croup—for though these remedies often effect relief, still, when they fail, their action on the bowels often renders all attempts at producing emesis entirely nugatory. We prefer, therefore, the administration of *emetics* as the very first movement towards treatment.

Cloths wrung out in cold water we have found one of the most valuable means during the attack. It seems to act often, immediately, in relieving the stridulous breathing and allaying the distress. Among our notes is a remarkable case occurring in the practice of Dr. Robert Campbell, wherein this application was the principal remedy used, and to it the fortunate result *of the paroxysm*, was entirely due. Large doses of Quinine were used in the *intermission*. When the emetic has acted efficiently, and the paroxysm is somewhat relieved, there remains great *hoarseness* and a tendency to a return of spasmodic constriction. There is often great *dryness* in the laryngeal respiration. At this stage we have found *Turpentine* a most valuable remedy, administered in the following manner:

Rj. of Spts. of Turpentine, - - -	℥j.
Brown Sugar, - - - - - -	℥ss.
Water (warm), - - - - - -	℥vj.

Mix well. Dose, one teaspoonful every hour or half hour, till the hoarseness subsides, when the time of administration may be prolonged. The use of turpentine should not be too long continued, on account of the unpleasant effect often produced by this remedy upon the urinary organs of children. We have found this one of the most valuable remedies during the paroxysm, after the free use of ipecac. We nearly always follow any other treatment of the *paroxysm*, by the use of turpentine.

Our treatment during the *intermission* or *remission*, though by far the most important part, may be given in but a few words, for it may be summed up in these two: *Give Quinine.*

It is our constant, we may say invariable practice, to administer efficient doses of quinine each day, *for two days*, after each paroxysm of Spasmodic Croup, with the view of preventing its return, and we expect

this effect to follow its administration with as much certainty as when the drug is given in true paroxysmal fever. The *time* we have found best for the administration of Quinine is to begin in the earlier part of the day, and to continue it in such quantities as to keep the patient fully under its influence until the period of the next paroxysm. The *quantity* of quinine usually given in cases of croup, between each paroxysm, varies from v. to xv. grains, (in divided doses) in accordance with the age of the child and the seriousness of the previous attack. Any remaining hoarseness which may exist at the time of beginning the use of quinine, usually subsides under the continuance of the doses. A good rule as to the amount to be given is, to continue the doses till quininism is manifested by the "ringing in the ears."

It will be observed that we recommend the giving of Quinine in the intermissions *for two days;* the object of this is, that its administration may be adjusted to both the quotidian and the tertian type of the croupal paroxysms. It is by no means uncommon to find that this measure of antiperiodic treatment may fail on account of a miscalculation as to the period for the return of the paroxysm. It is therefore safer to give quinine two days where the paroxysms had been at all violent.

We have thus hastily presented our views on the importance of Quinine in the treatment of the early stages of Croup. We daily read essays on the subject of this fearful disease, in which there seems to be no systematic or rational plan of treatment. The paroxysmal feature of the affection seems to be often entirely overlooked, and quinine is but seldom mentioned with confidence, as a remedy.* Our confidence in the above reported method of treatment, is the well-founded conviction of experience. The record of a detail of cases would occupy much space, and could add nothing to the confidence of the reader.

It is by no means uncommon for croup to prevail in certain localities, with a frequency of cases, (especially where there is a diphtheric tendency) to entitle the affection to the character of an *epidemic*—in such circumstances, we would say, in conclusion, that the free administration of Quinine, in the earlier period of the disease, would doubtless prevent the advance of the affection to the membranous and fatal stages; and, *under all circumstances*, Quinine, in these earlier stages, *should never be omitted.*

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* The present number of this *Journal* will be found to contain a valuable selected article on page 365, entitled "The Croup Process, by M. Porges."